

## **Appendix Q. Injury and Illness Prevention Program**

Every California employer must establish, implement, and maintain a written Injury and Illness Prevention Program (IIPP) with a copy at each workplace or at a central worksite if the employer has non-fixed worksites. The program requirements are contained in Title 8 of the California Code of Regulations, Section 3203 (T8 CCR 3203), and consist of the following eight elements:

- Responsibility
- Compliance
- Communication
- Hazard Assessment
- Accident/Exposure Investigation
- Hazard Correction
- Training and Instruction
- Recordkeeping

Additional information on IIPP requirements can be found by researching IIPP under the California Department of Industrial Relations and Cal/OSHA

Below is an example of an IIPP developed by the North Coast Redwoods District. Text in red is information that can be edited to reflect the district or park where the Injury and Illness Prevention Program will be implemented.

# CALIFORNIA STATE PARKS

## NORTH COAST REDWOODS – INJURY & ILLNESS PREVENTION PROGRAM

QUESTIONS REGARDING THIS PLAN SHOULD BE DIRECTED TO THE DISTRICT SUPERINTENDENT /UNIT MANAGER OR A SUPERVISOR. IN THEIR ABSENCE, QUESTIONS MAY BE DIRECTED TO THE DEPARTMENT'S SAFETY COORDINATOR: Jonas Ekeroth 916-635-7015

DATE

**The Safety mission of the California State Parks North Coast Redwoods District is to develop and engage in an active, effective and aggressive accident and injury prevention and reduction program. Promoting heightened safety awareness and increased employee wellness.**

## RESPONSIBILITY

*The **District Superintendent/NCRD**, is responsible for the overall implementation of the administrative services injuries and illness prevention program.*

**District Superintendent: Victor Bjelajac**

The **NCRD** Injury and Illness Prevention Program administrator:

IIPP ADMINISTRATOR **District Maintenance Chief - John Miller**

Administrative Safety Team Members:

<b>Victor Bjelajac</b>	<b>District Superintendent</b>
<b>Brett Silver</b>	<b>Supervising Park Ranger</b>
<b>John Vallett</b>	<b>Public Safety Superintendent</b>
<b>Tom Gunther</b>	<b>ERS Sector Superintendent</b>
<b>Thomas Valterria</b>	<b>Supervising Park Ranger</b>
<b>Lorraine Colby</b>	<b>District Admin Chief (Acting)</b>
<b>Brian Merrill</b>	<b>Senior Engineering Geologist – Supervisory</b>

All **NCRD** Managers and Supervisors are responsible for implementing and maintain the IIPP in their work area and for answering questions about the IIPP. A copy of this IIPP is available from each manager and supervisor.

This document was prepared using excerpts from sample Workplace Injury and Illness Prevention Programs provided by the Department of Industrial Relations, Division of Occupational Safety and Health, and from the Department's Administrative Manual, Chapter 1200 (SAFETY). It is not an exhaustive compilation of the material contained in any of these documents. The Department's Administrative Manual, the Employee and Facility Emergency Protection and Notification Plans (ref. DAM 1210), should be used, as a reference for all Safety matters not otherwise addressed in this program. The Department's/Unit's Hazard Communication Plan and Respiratory Protection Plan are attached as **Appendix A and B**. Copies of all these documents may be found at the **NORTH COAST REDWOODS DISTRICT OFFICE, 3431 FORT AVENUE, EUREKA.**

CONTACT: **District Maintenance Chief- John Miller, P.O. Box 2006, Eureka, 95502. (707) 445-6547 ex. 21**

Date of Most Recent IIPP Review and Revision: **February 6, 2017**

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**NCRD****INJURY AND ILLNESS PREVENTION PROGRAM**

This document was prepared using excerpts from sample Workplace Injury and Illness Prevention Programs provided by the Department of Industrial Relations, Division of Occupational Safety and Health, and from the Department's Administrative Manual, Chapter 1200 (EMPLOYEE SAFETY). It is not an exhaustive compilation of the material contained in any of these documents. The Department's Administrative Manual, the Employee and Facility Emergency Protection and Notification Plans (ref. DAM 1235), should be used, as a reference for all Safety matters not otherwise addresses in this program. The Department's/Unit's Hazard Communication Plan and Respiratory Protection Plan are attached as **Appendix A and B**. Copies of all these documents may be found at the **NCRD. 3431 FORT AVE, EUREKA.**

**Introduction**

Safety of the public and of employees is a prime consideration in all operations of the Department. (Ref. DAM 1200) **No work is so important or urgent that it should be undertaken in an unsafe manner.** Personal injuries cause pain, mental anguish and inconvenience to employees and their families; they cost the State and the employee's money, and result in reduced service to the public, delay in implementing departmental programs and additional workload for other employees who have to carry on for the injured employee.

The Department is committed to maintaining an injury-free and illness-free workplace, and to complying with applicable laws and regulations governing workplace safety. To achieve this goal, **NCRD** has adopted this Injury and Illness Prevention Program (IIPP).

**Policy**

It is the Department's policy to conduct its business, provide services, and to construct and maintain facilities in the safest possible manner consistent with applicable policy, procedure, or work practice, and promote through an effective injury and illness prevention program, a safe, healthful, and secure work environment for employees and visitors, including persons with disabilities, that is free from violence, threats, harassment, and intimidation, and protects the public from harm in connection with its operations.

## Compliance

### District Superintendent

**District Superintendent Victor Bjelajac**, has the authority and responsibility to execute specific provisions of the Program. The **District Superintendent** shall hold meetings of all supervisory personnel a minimum of **regularly** to discuss safety problems and accidents that have occurred. The **District Superintendent** or Manager shall serve as Reviewing Officer for all accident investigations. The **District Superintendent** or his designee will review and update the Injury and Illness Prevention Program and associated documents annually.

The **District Superintendent** and his supervisory staff are responsible for ensuring that the Department's safety and health policies and procedures are clearly communicated and understood by all employees. Employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment.

Employees who follow safe and healthful work practices shall have this fact recognized and documented on their performance reviews. (Ref. STD form #637, Individual Performance Plan, section 3) Employees who make a significant contribution to the maintenance of a safe workplace, as determined by the **District Superintendent**, will receive formal acknowledgment from the Department.

Employees who are unaware of correct safety and health procedures shall be trained or retrained. Supervisors shall train employees in Vehicle Accident Prevention in accordance with the requirements of the Department's Administrative Manual, Section 1265.2. (Vehicle as used in this document shall refer also to Vessels, as appropriate.)

**Willful violations of safe work practices may result in disciplinary action.**

### SUPERVISORS

All supervisors are responsible for carrying out the IIPP within their function. Their responsibilities include, but are not limited to:

- Analyzing all jobs to identify potential accident sources and establish safe job standards. This can be done by the use of the Task Hazard Analysis.
- Maintaining a file containing owner's manuals and operating instructions for all equipment.
- Posting operating instructions on or near all equipment machinery, and applicable General Industrial Safety Orders in all work areas.
- Determining the knowledge and proficiency of each employee in the care, use and limits of tools and equipment applicable to the assignment.

- Providing appropriate personal safety equipment for each employee, and ensuring that it is properly used (ref. DAM 1215.2).
- Providing job instruction training for each employee.
- Before assignment, considering each employee's health and physical abilities, limits and condition in relation to the job's physical demands. (Refer to DAM 0200 for information on health questionnaires and medical reports.)
- Encouraging employees to discuss any hazards of their work before beginning a task.
- Establishing routine safety inspections of tools, equipment, machinery and job practices and taking corrective action as indicated (ref. CCR Title 8; Sections 1509 and 3203). Necessary corrective action that cannot be completed by the supervisor should be referred to the next supervisory level.
- Not permitting any employees to operate power tools or any equipment requiring special skills without giving them proper training. This includes Youth Conservation Corps enrollees and any other special employee categories or volunteer workers.
- Investigating and analyzing every reported accident or near-accident.
- Recording each work related injury or illness on the Cal-OSHA log and
- Summary of Occupational Injuries and Illnesses, Cal-OSHA 300, according to instructions provided in DAM 1230.
- Recommending appropriate corrective action in cases of negligence and implementing it, if approved.
- **NCRD** supervisors will conduct tailgate meetings at least every ten (10) working days for maintenance employees. Employees in other classifications will be given "tailgate" safety training sessions as needed. These sessions shall be recorded using the Safety Training Record with Roster (Ref. DAM 1215.2, DAM 1220.2, CCR Title 8, Section 1509, 3203)

## EMPLOYEES

All employees are expected to work together to implement the Injury and Illness Prevention Program and to identify and eliminate conditions and practices that reduce the benefits of a safe and healthful work environment. All employees shall be ready to assume any of the previously mentioned responsibilities. In addition, individual employees are specifically required to:

- Participate in planning safe job practices.
- Understand operating instructions and job procedures before proceeding with job assignments and stop to consult with their supervisor or an experienced employee when uncertain.
- Use provided safety equipment and equipment guards and request additional safety equipment or equipment guards when needed.
- Carry out assignments and maintain work areas in accordance with established safe job practices and obey warning tags and signs.

- Take a special interest in new or inexperienced employees by calling their attention to dangerous practices and by teaching them safe methods of doing their work.
- Maintain good health and a physical condition commensurate with assigned duties.
- Report any allergies, prescription or over-the-counter medication use, or physical conditions which may be aggravated by assigned duties or impair the employee's ability to operate equipment or tools to the supervisor.
- Report any unsafe job practices, conditions, tools or equipment to a supervisor. Use established Lockout/Tag out procedures to prevent other employees from inadvertently using unsafe equipment.
- Report all accidents and near misses to a supervisor immediately, whether or not anyone is hurt. Get first aid at once in case of injury. Reports of Vehicle Accidents will comply with the Department's requirements as explained in the Department's Administrative Manual. (Ref. DAM 1215.3, DAM 1270)

Responsibility for various aspects of this Program have been delegated, as stated in the attached Reference List. Any questions regarding the Program should be directed to the **District Superintendent**, manager, or appropriate supervisor. In their absence, questions may be directed to the Department's Health and Safety Coordinator or Industrial Hygienist.

### Health and Safety Coordinator

The role of the Health and Safety Coordinator is to assist Headquarters in development of a coordinated statewide district safety program and reduction of injuries that can be achieved by, but not limited to, the following:

- Act as the **NCRD** liaison with the Statewide Safety Team
- Act as facilitator for the **NCRD** Safety Team
- Facilitate/conduct **NCRD** Safety Team work-site safety inspections throughout the state
- Identify training needs for **NCRD** personnel
- Develop and update as needed the **NCRD** Injury Reduction and Safety Plan
- Monitor **NCRD** injury rates
- Analyze injury trends and, in consultation with the **NCRD** Safety Team, make recommendations to the **District Superintendent** on how to reduce industrial accidents and improve workplace safety
- Maintain records of worksite safety inspections and other pertinent safety matters occurring in the **NCRD** office (minimum 3 years)



## **NORTH COAST REDWOODS DISTRICT Safety Team**

The role of the **NCRD** Safety Team is to assist the Department in meeting **NCRD'S** safety program goals and reducing injuries which can be achieved by, but not limited to, the following:

- The **NCRD** Safety Team will meet monthly. The charge of this Committee is to promote wellness, prevent injuries, and reduce worker's compensation cost.
- Conduct work-site safety inspections throughout the **NCRD** units (minimum of 2/year)
- Recommend appropriate corrective actions for identified safety concerns
- Promote task hazard analysis
- Review **NCRD** Safety records, analyze injury trends, and make recommendations to the **DISTRICT SUPERINTENDENT** on how to reduce injury in the District
- Discuss and prioritize actions to be taken relative to safety inspections
- Assist in identifying IIPP training needs
- Be aware of new substances or equipment which could present a safety hazard being introduced into the workplace
- Evaluate **NCRD** Safety Program effectiveness

## **COMMUNICATION**

Matters concerning occupational safety and health will be communicated to employees orally, through written documentation, staff meetings, formal and informal training, and posting, as appropriate.

Communication from employees to supervisors and/or safety representatives (such as **NCRD** Safety team members) regarding unsafe or unhealthy conditions or simple suggestions is encouraged and may be verbal or written, signed or anonymous, as the employee chooses. A log shall be kept of all such reports, by the Department's Safety and Health Coordinator (see RECORD KEEPING). ***NO EMPLOYEE SHALL SUFFER RETALIATION FOR REPORTING HAZARDS OR POTENTIAL HAZARDS, OR FOR MAKING SUGGESTIONS RELATED TO SAFETY.*** (Ref. Labor Code Section 6310) All such communications shall be evaluated/investigated by the **DISTRICT SUPERINTENDENT** /Unit Manager or his/her designee. The results of the investigation of any employee safety suggestion or report of hazard shall be distributed to all employees affected by the hazard, or posted on appropriate bulletin boards.

Each new employee shall be given a copy of the IIPP and, if possible, be personally introduced to the **NCRD** Safety team members as part of his/her initial orientation. The orientation shall also include information on emergency procedures, the District Hazard Communication Program, appropriate safety precautions, procedures for reporting safety hazards or making safety suggestions, and accident reporting procedures.

All **NCRD** and unit staff meetings shall include "Safety" as an agenda item, and open discussion by all employees will be encouraged. Employees will be informed of this in advance so that maximum participation can occur.

Current copies of the Cal-OSHA poster "Safety and Health Protection on the Job" shall be posted in each unit.

The Cal-OSHA form 300 shall be posted on the bulletin board at the Personnel Office annually for thirty (30) days, beginning February 1st, as required by law. The **NCRD** Emergency Plan will be posted in the Personal Office. Evacuation Plans are posted in each unit.

The Material Data Safety Sheets are kept in the office of the units involved. A list of the MSDS locations is attached as Appendix D (**ATTACH AS NECESSARY**).

## **WORKPLACE HAZARD EVALUATION AND ABATEMENT**

Each supervisor and/or the Safety team shall conduct periodic safety inspections to identify unsafe conditions and practices. While employees are encouraged to continuously identify and correct hazards and poor practices, certain situations require formal evaluation and documentation:

The **DISTRICT SUPERINTENDENT** or his designee and members of the Safety team shall conduct an inspection of all **NCRD** facilities annually. At the time of this inspection, participants will review all workplace injury reports filed since the last annual inspection. The inspection checklist is attached as Appendix E.

- The Safety Team shall conduct biannual inspections of the facilities. One of these inspections will coincide with the annual inspection listed above.
- The operator before each use shall visually inspect all equipment. All work areas will be visually inspected for safe workstations.
- The appropriate supervisor and/or the Safety team shall evaluate the potential for hazard and make recommendations for abatement and/or training when any of the following occur:
  - (1) Any new substances, processes, procedures, or equipment, which present a safety hazard, are introduced to the workplace.
  - (2) When the **DISTRICT SUPERINTENDENT** or a supervisor becomes aware of a new or previously unidentified hazard.
  - (3) When an occupational injury, occupational illness, or a near miss occurs, the supervisor should implement corrective measures if appropriate, or offer suggestions to the next level of supervision.

- All hazards identified shall be corrected immediately. If immediate correction is not possible, the hazard shall be safeguarded through closure and/or tag-out. The hazard shall be assigned a priority for correction by the **DISTRICT SUPERINTENDENT** or her designee. Highest priority shall be given to severe and imminent hazards. Employees exposed to such hazards shall be removed from the area, except those necessary to correct the existing condition. The latter employees shall be properly trained and provided with necessary safeguards.

The Accident Cause Analysis System (Ref. DAM 1250) and DPR 258, Task Hazard Analysis (Ref. DAM 1250.1) are additional tools available to managers and supervisors.

All inspections, investigations, findings, and corrective measures taken shall be fully documented as directed in the RECORD KEEPING section, outlined on page 11.

## **ACCIDENT INVESTIGATION**

A thorough and properly completed accident investigation is necessary to obtain facts. The investigation should focus on causes and hazards. Analysis of what happened and why it happened is aimed at determining how it can be prevented in the future.

Accidents and significant near misses shall be investigated and documented by supervisors using the procedures outlined in the Department's Administrative Manual, Section 1200 (Safety) (ref. DAM 1215.6). Injury accidents will be investigated and documented using the DPR 761, Report of Minor Injury, or SCIF 3301 and 3067, Employer's Report of Occupational Injury or Illness, or the DPR Accident Investigation Report (generated by the Workers' Comp & Safety Unit), as appropriate. Fatalities and serious injuries must be reported immediately to Division Headquarters and the nearest office of the Division of Occupational Safety and Health, at the address and telephone number given below. "Serious injury" is defined as amputation, serious disfigurement, any injury requiring hospitalization of longer than twenty-four (24) hours (other than for observation only), or chemical exposure to a toxic substance. Serious injuries to Contractors and/or their employees must be reported, by the Contractor, to their insurance carriers. (Ref. DAM 1245, CCR Title 8, Section 342)

## **TRAINING**

The Department recognizes that it has a duty to include safety as an integral part of employee training. Employees need to work safely as well as productively and efficiently. The supervisor is the essential link in ensuring the proper outcome. In general, safety training shall be provided:

- For new employees, and employees given a job assignment for which they have not previously received training. If the position is supervisory, such training shall include

familiarization with hazards and risks faced by the employees under the supervisor's direction.

- Whenever new substances, processes, procedures or equipment pose a new hazard.
- Whenever the **DISTRICT SUPERINTENDENT**, supervisor, or her/his designee becomes aware of a previously unrecognized hazard.
- For all employees in periodic refresher safety training involving general and job-specific safety and health practices.
- Workplace safety, job-specific hazards, and/or hazardous materials as applicable. As back sprains and strains are the most common types of injuries in the Department, proper lifting techniques will be emphasized as a training topic.

**A list of the safety training specifically identified for the employees of the Department is attached as Appendix C. This list shall be reviewed and updated annually by the **DISTRICT SUPERINTENDENT** or his designee.**

## RECORD KEEPING

The **DISTRICT SUPERINTENDENT**, Unit Manager or his/her designee shall keep records of inspections, including the name of the person(s) conducting the inspection, date of inspection, the unsafe conditions and work practices identified, and the action taken to correct these identified unsafe conditions and work practices. A Hazard Log with similar information for conditions discovered through less formal means shall also be maintained. The person recording the information shall initial entries in these logs. These records shall be maintained for a minimum of three (3) years. Records of annual inspections shall be maintained for three (3) years.

The **DISTRICT SUPERINTENDENT**, Unit Manager or his/her designee shall also keep documentation of safety and healthy training attended by each employee, including the employee name or other identifier, training dates, type(s) of training, and training providers. This documentation shall be maintained for a minimum of three (3) years. The format for this documentation shall be the forms previously identified in this document, those identified in the Department's Administrative Manual, Chapter 1200, or otherwise as appropriate. Copies of all memoranda or other correspondence regarding safety issues shall also be kept in a retrievable file for a period of three (3) years.

Each supervisor shall maintain an updated copy of the Department's IIPP. All employees will be given a copy when the plan is initially issued or updated. New employees will be given a copy as part of their orientation.

In addition, the Department shall maintain Employee Toxic Exposure Records and Material Safety Data Sheets as required by law. These records will be kept in the workers Compensation and Safety unit by the Department's Safety and Health Coordinator (Ref. SAM 2590, DAM 1240)

## CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

### HAZARD COMMUNICATION PROGRAM

In order to comply with the California Occupational Safety and Health Act, General Industry Safety Orders, and to enhance employee health and safety, the Department has developed a Hazard Communication Program. This program is intended to provide information about chemical hazards and other hazardous substances in the workplace and to ensure that employees receive proper training in the use of these substances. The written program shall be made available to all employees, and shall be specifically included in any orientation for new employees.

#### CONTAINER LABELING:

It is the policy of the Department that no container of hazardous substances will be released for use until the following label information is verified:

- Containers are clearly labeled as to the contents.
- Appropriate hazard warnings are noted
- The name and address of the manufacturer are listed.

This responsibility has been assigned to **John Miller**, Health and Safety Coordinator. To further ensure that employees are aware of the hazards of materials used in their work areas, it is our policy to label all secondary containers. Supervisors shall ensure that all secondary containers are labeled with either an extra copy of the original manufacture's label or with generic labels, which have a block for identity and blocks for the hazard warning. The labeling requirement shall not apply to secondary containers intended only for immediate use during the shift by the employee who made the transfer from the original container (ref. CCR, Title 8, Section 5194 (f) (6)).

#### SAFETY DATA SHEETS (SDS):

Supervisors are responsible for ensuring that copies of MSDS for all hazardous substances to which Department employees may be exposed are to be kept in the employee's work area. **John Miller**, Health and Safety Coordinator, is responsible for obtaining and maintaining the master data sheet system for the administration building, which is kept at the Health and Safety Coordinator desk. The other **UNITS' SUPERVISORS** will keep their MSDS in a binder along next to their IIPP.

**John Miller**, Health and Safety Coordinator, shall review incoming data sheets for completeness, and new and significant health/safety information to enable the supervisor to pass the information on to the affected employees. If an MSDS is missing or incomplete, a new MSDS will be requested from the manufacturer.

## EMPLOYEE INFORMATION AND TRAINING

Supervisors shall conduct a health and safety orientation for new employees covering information and training on the requirements and rights contained in the Hazard Communication Regulation (ref. CCR, Title 8, Section 5194 (h)).

The following topics will be covered:

- Inform employees of any operations in their work area where hazardous substances are present.
- Location, availability, and content of the written hazard communication program.
- Physical and health effects of the hazardous substances.
- Methods and observation techniques used to determine the presence or release of hazardous substances in the work areas.
- How to lessen or prevent exposure to these hazardous substances through usage of control, work practices and personal protective equipment.
- Steps the District has taken to lessen or prevent exposure to these substances.
- Emergency and first aid procedures to follow if employees are exposed to hazardous substances.
- Location of MSDS. How to read labels and review MSDS to obtain appropriate hazard information. That employees must be informed within thirty (30) days of the receipt of a revised MSDS, when the revision indicates significantly increased risk to, or measures necessary to protect, employees.
- That employees have a right to personally receive information regarding any hazardous substance to which they may be exposed. That their physician and bargaining unit representatives also have a right to this information, and that employees are protected from retaliation for exercise of their rights in accordance with the revisions of the regulation.

### **NOTE: IT IS CRITICALLY IMPORTANT THAT ALL EMPLOYEES UNDERSTAND THE TRAINING!**

If you have any additional questions, contact the Department's Health and Safety Coordinator or Industrial Hygienist. The training must be documented and file maintained in accordance with the provisions of the District's Unit's Injury and Illness Prevention Program.

When new hazardous substances are introduced, the supervisor shall review the above items as they relate to the new material at the next safety meeting.

### **LIST OF HAZARDOUS SUBSTANCES:**

Each supervisor shall maintain a list of all known hazardous substances present in the work area. Each list will be kept with the MSDS at the worksite. Specific information on

each noted hazardous substance can be obtained by reviewing the Material Safety Data Sheet.

### **HAZARDOUS NON-ROUTINE TASKS:**

Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each affected employee shall be given information by the supervisor about hazards to which he/she may be exposed during such an activity.

This information shall include:

- Specific hazards.
- Protective/safety measures which shall be utilized.
- Measures the employee is to take to lessen the hazards including, when appropriate, ventilation, respirators, presence of another employee, and emergency procedures.

### **INFORM CONTRACTORS:**

To ensure that outside contractor's work safely in and around the Department's facilities, they shall be provided the following information:

- Hazardous substances to which they may be exposed while on the job site.
- Precautions the employees may take to lessen the possibility of exposure by usage of appropriate protective measures.

**The person responsible for providing this information to the contractor is the unit supervisor.**

### **HAZARDOUS SUBSTANCES IN UNLABELED PIPES:**

To ensure that employees who work on unlabeled pipes have been informed as to the hazardous substances contained within, before starting work on unlabeled pipes, employees are to contact the supervisor for the following information:

- The hazardous substance in the pipe, if any.
- Potential hazards.
- Safety precautions that shall be taken.

QUESTIONS REGARDING THIS PLAN SHOULD BE DIRECTED TO THE **DISTRICT SUPERINTENDENT** /UNIT MANAGER OR A SUPERVISOR. IN THEIR ABSENCE, QUESTIONS MAY BE DIRECTED TO THE DEPARTMENT'S HEALTH AND SAFETY COORDINATOR: Jonas Ekeroth 916-635-7015



**Heat Illness-Stroke and Exhaustion:**

Ensure that all employees know and understand the causes of both types of heat related illnesses. Additionally employees will be able to recognize and treat both of these serious conditions.

**Heat Stress**

This attachment is intended to comply with California Code of Regulations Title 8, Section 3395, Heat Illness Prevention. The heat illness prevention standard is applicable to any outdoor workplace, whenever environmental risk factors for heat illness are present. Environmental risk factors for heat illness are defined in the regulation as working conditions that affect the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun, and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees. In the course of their work duties, employees in the classifications listed below may be exposed to environmental risk factors for heat illness.

**Provision of Water Clean:** Fresh and cool potable water shall be readily available to employees. Whenever environmental risk factors for heat illness exist, drinking water will be provided in sufficient quantities to provide one quart per employee per hour for the entire shift (at least 2 gallons per employee for an 8-hour shift). Supervisors are responsible to ensure that employees have an adequate supply of drinking water. Smaller quantities of water may be provided at the beginning of the shift if there are effective procedures for replenishing the water supply during the shift as needed to allow employees to drink at least one quart per hour. Employees are encouraged to drink water frequently.

**Provision of Shade:** A shaded area will be provided for employees to use if they are suffering from heat illness or believe they need a recovery period to prevent heat illness. The shade area shall be open to the air or ventilated and cooled and access shall be permitted at all times. Canopies, umbrellas or other temporary structures may be used to provide shade, provided they block direct sunlight. Supervisors are responsible to ensure that employees have access to a shaded area.

**Recognizing Heat Illness Risk Factors:** As noted above, environmental risk factors for heat illness include air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees. Personal risk factors for heat illness include age, degree of acclimatization, general health, water consumption, and use of medications, caffeine, or alcohol which can affect the body's water retention or other physical response to heat.

Supervisors must evaluate work conditions before sending employees to perform outdoor work in hot conditions. Typically, temperatures above 90°F, especially with

heavy physical work activities, would represent conditions where there is a risk of heat illness. Other factors, such as high humidity or work activities that restrict the body's ability to cool itself, such as protective clothing, could result in a risk of heat illness at lower temperatures. The National Weather Service Heat Index guideline (attached) may be used to assess the environmental risk of heat illness, based on temperature and relative humidity. The Heat Index table categorizes the risk or degree of heat illness with increasing heat index values. Provision of water and shade as described above should be implemented whenever the Heat Index exceeds 90°F.

**Acclimatization to heat conditions:** Acclimatization is the gradual exposure to work in hot conditions to allow a person's body to adjust to working in heat. Acclimatization is particularly important for employees who are returning to work after a prolonged absence, recent illness, or recently moving from a cool to hot climate. For heavy work under very hot conditions, a period of 4-10 days of progressively increasing work time is recommended, starting with about 2 hours work per day. For less severe conditions, 2-3 days of increasing work activity and duration are recommended.

**Identifying Heat Illness:** Heat illness is a group of serious and escalating medical conditions that can result from the body's inability to cope with a particular heat load, and includes heat fatigue, heat cramps, heat exhaustion, and heat stroke. The National Institute of Occupational Safety and Health (NIOSH) publication *Working in Hot Environments* describes the symptoms and response measures for several types of heat illness, as follows:

1. **Transient Heat Fatigue** : Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue will be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).
2. **Heat Rash:** Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.
3. **Fainting:**  
A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint. With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain. Upon lying down, the worker should soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

4. **Heat Cramps:** Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen, but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relived by taking salted liquids by mouth. CAUTION Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.
5. **Heat Exhaustion:** Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated. In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects. CAUTION Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.
6. **Heat Stroke:** Heat stroke is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached. A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105°F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur. Any person with signs or symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment at a medical facility should be directed to the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke. Early recognition and treatment of heat stroke are the only means of preventing permanent brain damage or death. Any employee who recognizes symptoms or signs of heat illness in themselves or in co-workers should immediately report this condition to their supervisor.

**Responding to Heat Illness:** When you recognize signs of heat illness in yourself or in a co-worker: – Move to a shaded area for a recovery period of at least five minutes – If the condition appears to be severe or the employee does not recover, then emergency medical care is needed. – Emergency medical care shall be provided by the following method: – Call 911

Be ready to provide emergency response personnel with directions to work location:

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Transport the employee to the nearest hospital or urgent care center, located at:

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Directions to medical care:

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**Training:** All employees who may work outdoors in conditions where there are environmental risk factors for heat illness shall be provided training on the information contained in this procedure and attachments.

**DEPARTMENT OF PARKS AND RECREATION****RESPIRATORY PROTECTION PROGRAM****OVERVIEW**

The Department is committed to maintaining an injury- and illness-free workplace, and is making every effort to protect our employees from harmful airborne substances.

Whenever it is feasible to do so, we will accomplish this through engineering controls such as ventilation or substitution with a less harmful substance, and through administrative controls limiting the duration of exposure. When these methods are not adequate, or if the exposures are brief and intermittent, or simply to minimize employee exposure to airborne substances, we provide respirators to allow employees to breathe safely in potentially hazardous environments.

Respirators have limitations and their successful use depends on an effective respiratory protection program. Our Respiratory Protection Policy as outlined in DAM Chapter 1220.3 is designed to: identify, evaluate and control exposure to respiratory hazards; select and provide the appropriate respirators; and coordinate all aspects required for proper use, care and maintenance of the equipment.

Accomplishing these goals requires a cooperative effort on the part of employees and management.